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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AGGARWAL, YOGESH K

ART UNIT PAPER NUMBER

2615

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/678,333	Applicant(s) WATANABE, MIKIO	
	Examiner Yogesh K Aggarwal	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed 08/24/2004 have been fully considered but they are not persuasive.

Examiner's response:

2. Applicant argues with respect to claim 9 (Page 8) that there is no teaching or suggestion in Shuichi that is directed to an electronic camera comprising a communication device for stopping wireless oscillation at least during an imaging process when the electronic camera receives an instruction to capture an image. The Examiner respectfully disagrees. Shuichi teaches in Paragraph 16 (figure 2), starting from Step S1 that a power switch is turned ON which supplies power to all other circuits of the camera except transmitter 5. Now a release button (shutter) is pressed for photographing a subject (step S2), the image is AF, AE, A/D converted and then the digital image stored in the memory 4 (step S3). Therefore steps S2 and S3 correspond to the electronic camera receiving an instruction to capture an image during which time the CPU 6 controls the power supply device 7 so as to stop the power being supplied to communication device (transmitter 5). It would be inherent that if there is no power supplied to the transmitter device the wireless oscillation will stop at least during an imaging process (Steps S2 and S3). The image is transmitted to the external device in steps S4-S7 (Paragraph 17).

3. Applicant argues with respect to claim 1 (Page 10) that Shuichi teaches that the transmission section is rendered inoperable upon the power switch being activated when the camera is in a photograph-taking mode but fails to teach or suggest stopping the oscillation section upon the receipt of an instruction to perform a photograph-taking operation. The Examiner respectfully disagrees. Shuichi teaches in Paragraph 16 (figure 2), starting from Step

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S1 that a power switch is turned ON which supplies power to all other circuits of the camera except transmitter 5. Now a release button (shutter) is pressed for photographing a subject (step S2), the image is AF, AE, A/D converted and then the digital image stored in the memory 4 (step S3). Therefore steps S2 and S3 correspond to upon the receipt of an instruction to perform a photograph-taking operation during which time the CPU 6 controls the power supply device 7 so as to stop the power being supplied to communication device (transmitter 5). It would be inherent that if there is no power supplied to the transmitter device the wireless oscillation will stop at least during an imaging process (Steps S2 and S3). The image is transmitted to the external device in steps S4-S7 (Paragraph 17). Applicant further argues that Pine fails to teach or suggest stopping of the oscillation section upon the receipt of an instruction to perform a photograph-taking operation. Pine is merely used for the teaching of an oscillation device used in a wireless communication device incorporated in a camera.

4. Applicant further argues with respect to claim 3 (Page 11) is not a method claim corresponding to apparatus claim 1. The Examiner respectfully disagrees. Claim 3 recites a communication method of an information recording device, comprising the steps of generating a carrier for wireless transmission when said wireless transmission to external equipment starts; issuing an instruction to record at least either image or audio information; and stopping the generation of said carrier when an instruction to record said information is issued. Claim 1 recites "an oscillation section for generating a carrier said wireless communication device ... and wherein said controller causes said oscillation section to stop the generation of e-the carrier when the information recorder receives an instruction to capture an image, and the controller causes the oscillation section to stop at least for a period from the time when said image or audio

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information is captured to the time when said image or audio information is recorded". Therefore claim 1 contains all the recited limitations of claim 3.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Shuichi (JP Patent # 09-037125).

[Claim 9]

Shuichi teaches an electronic camera (figure 1), which transmits a captured image to external equipment through wireless communication (Paragraph 14 teaches radiotelephony which transmits information wirelessly through radio waves) comprising a communication device (figure 1, transmission device 5) for stopping wireless oscillation at least during an imaging process when the electronic camera receives an instruction to capture an image (Shuichi teaches in Paragraph 16 (figure 2), starting from Step S1 that a power switch is turned ON which supplies power to all other circuits of the camera except transmitter 5. Now a release button (shutter) is pressed for photographing a subject (step S2), the image is AF, AE, A/D converted and then the digital image stored in the memory 4 (step S3). Therefore steps S2 and S3 correspond to the electronic camera receiving an instruction to capture an image during which time the CPU 6 controls the power supply device 7 so as to stop the power being supplied to communication device (transmitter 5). It would be inherent that if there is no power supplied to

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the transmitter device the wireless oscillation will stop at least during an imaging process (Steps S2 and S3). The image is transmitted to the external device in steps S4-S7 as taught in Paragraph 17).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Joshua I. Pine (US Patent # 6,714,260).

[Claim 1]

Shuichi teaches an information-recording device (figure 1, Paragraph 14), comprising a recorder (figure 1, memory 4), which can record at least, either image or audio information (Paragraph 14) and a wireless communication device (figure 1, transmitter device 5) for transmitting said information to external equipment through wireless communication (Paragraph 14 teaches radiotelephony which transmits information wirelessly through radio waves). Shuichi teaches in Paragraph 16 (figure 2), starting from Step S1 that a power switch is turned ON which supplies power to all other circuits of the camera except transmitter 5. Now a release button (shutter) is pressed for photographing a subject (step S2), the image is AF, AE, A/D converted and then the digital image stored in the memory 4 (step S3). Therefore steps S2 and S3 correspond to upon the receipt of an instruction to perform a photograph-taking operation during which time the

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CPU 6 controls the power supply device 7 so as to stop the power being supplied to communication device (transmitter 5). It would be inherent that if there is no power supplied to the transmitter device the wireless oscillation will stop at least during an imaging process (Steps S2 and S3). The image is transmitted to the external device in steps S4-S7 (Paragraph 17).

Paragraph 15 of Shuichi teaches that the microcomputer 6 manages the sequence of the whole camera including the generation and stop of the transmission device. Although wireless devices are very well known in the art to have an oscillation device for generating a carrier frequency, Shuichi fails to teach explicitly an oscillation section for generating a carrier for said wireless communication device. However Pine '260 teaches an imager circuit 15 having a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal (Col. 1 lines 66-67, col. 2 lines 1-7 figure 1). Therefore taking the combined teaching of Shuichi and Pine, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate an oscillation section for generating a carrier for said wireless communication device taught in Pine into the system taught in Shuichi in order to pick a radio frequency signal by a conventional TV receiver, which can be synthesized on-chip to provide a wireless video link as taught in Pine (Abstract).

[Claim 2]

Shuichi teaches that wherein said controller causes said oscillation section to start the generation of a carrier when said information has been recorded [Shuichi teaches in Paragraph 16, figure 2 that at step S3 suitable exposure action is performed and the image is recorded on the memory 4. Paragraph 17 further teaches that camera power is turned off at step S4. At step S5 CPU 6 checks whether the automatic transmission switch S10 is ON for energizing the transmission device 5.

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In step S6 the remaining power is checked for transmitting the data file. If the remaining power is enough, the transmission device 5 is energized for carrying out the transmission, which means that the oscillation section starts the generation of a carrier because carrier is part of the transmission device].

[Claims 3 and 7]

Regarding claims 3 and 7 these are method claims corresponding to apparatus claim 1 and 2 respectively. Therefore, claims 3 and 7 are analyzed and rejected as previously discussed with respect to claim 1 and 2.

[Claim 8]

Shuichi further teaches a step of automatically transmitting said recorded information to said external equipment when the generation of said carrier is started [Shuichi teaches in Paragraph 17, figure 2 that in step S6 the remaining power is checked for transmitting the data file. If the remaining power is enough and the switch S10 is ON, the transmission device 5 is energized for automatically carrying out the transmission, which means that the oscillation section starts the generation of a carrier and therefore transmits the recorded information to the external equipment].

9. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-37125) in view of Joshua I. Pine (US Patent # 6,714,260), as applied to claim 3 above, and further in view of Yokota et al. (US Patent # 5,847,662).

[Claim 4]

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Shuichi and Pine fail to teach, "... wherein some information indicating that said carrier is to be stopped is transmitted to said external equipment before the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 1 lines 46-65)[Yokota teaches that when the radio card communication apparatus receives a response signal modulated with a second carrier from the radio card, it stops transmitting the first carrier]. Therefore taking the combined teachings of Shuichi, Pine and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate transmitting information indicating that said carrier is to be stopped to said external equipment before the generation of said carrier is stopped allowing the external equipment of having advanced warning of data transmission start/stop from the camera.

[Claim 6]

Shuichi and Pine fail to teach, "... the step of receiving a synchronization signal emitted by external equipment while the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 2 lines 6-10)[Yokota teaches that the signal received from the radio card is phase-synchronous (synchronization signal) with the first carrier frequency and while that signal is received the generation of the first carrier is stopped (col. 1 lines 46-65)]. Therefore taking the combined teachings of Shuichi, Pine and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate receiving a synchronization signal emitted by an external equipment while the generation of said carrier is stopped as taught in Yokota into the system of Shuichi in view of Pine in order to have synchronization between the camera and the external equipment even after the transmission of the carrier is stopped.

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10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125), Joshua I. Pine (US Patent # 6,714,260), Yokota et al. (US Patent # 5,847,662) as applied to claim 4 above in further view of Yoshizawa et al. (US Patent # 4,802,201).

[Claim 5]

Shuichi in view of Pine and Yokota teach the limitations of claim 4 but fail to teach “.... causing any external equipment to transmit equipment identification information to another equipment for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information”. However these limitations are well known in the art as evidenced by Yoshizawa (Abstract). It is noted that Yoshizawa specifically teaches that when a carrier wave is received from an external equipment and when the identification information contained in that carrier wave coincides with a preassigned identification signal, transmission of a paging signal, which would involve some kind of carrier, is stopped (Abstract). Therefore taking the combined teachings of Shuichi, Pine, Yokota and Yoshizawa as a whole, it would have been obvious to one skilled in the art to modify the external equipment by transmitting equipment identification information to another equipment for stopping a carrier and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information. Doing so would lead to a power saving type apparatus as taught in Yoshizawa (col. 2 lines 46-49).

11. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Yokota et al. (US Patent # 5,847,662).

[Claim 10]

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Shuichi teaches that the wireless oscillation is stopped during an imaging process but fails to teach, wherein, “while said wireless oscillation is stopped after the communication with desired external equipment has been established, said communication device is placed into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section.” However Yokota teaches that these limitations are well known and used in the art. It is noted that Yokota does teach in col. 2 lines 6-10, when the device receives the second carrier it stops transmitting the first carrier (col. 1 lines 40-45) and synchronizes with the first carrier frequency. The Examiner considers the semi-stop state as receiving a phase-synchronous signal from the external equipment. Therefore taking the combined teaching of Shuichi and Yokota it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate stopping said wireless oscillation after the communication with desired external equipment has been established and placing the communication device into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section. The benefit of doing so would be so that a communication apparatus can continuously transmit or receive a vast amount of data at a time at a high speed without intermission as evidenced in Yokota (col. 1 lines 40-45).

[Claim 12]

In light of the teaching from Shuichi and Yokota, it would be obvious to those skilled in the art that the electronic camera would notify said external equipment that it will go into said semi-stop state and after stopping said semi-stop state, it would notify said external equipment that it has

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been released from said semi-stop state in order to have the external equipment be in a synchronization state with the camera.

Yokota teaches that said external equipment keeps the connection therewith and supplies a synchronization signal in response to the notification of semi-stop state received from said electronic camera (Col. 2 lines 6-10).

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Yokota et al. (US Patent # 5,847,662) as applied to claim 9 above in further view of Anderson (US Patent # 6,233,016).

[Claim 11]

Shuichi in view of Yokota teaches the limitations of claim 9 but fails to teach "... wherein said semi-stop state starts when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state.

However Anderson teaches that these limitations are well known and used in the art. It is noted that Anderson, col. 7 lines 36-39, teaches a semi-stop state, wherein the semi-stop state is read as being started during a state when the power is in the Power-state 4 mode, during which a reduced power is supplied to the camera.

Further with regards to the limitation of said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state Anderson teaches that said semi-stop ends during the power-state 2 mode during which an imaging operation is finished (col. 7 lines 44-46). Therefore taking the combined

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teaching of Shuichi, Yokota and Anderson it would have been obvious to one skilled in the art at the time of the invention to have been motivated to start said semi-stop state when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and to end said semi-stop state when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. The benefit of doing so would be to effectively and significantly increase the useful life of the batteries as taught in Anderson (col. 3 lines 51-53).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K Aggarwal whose telephone number is (703) 305-0346. The examiner can normally be reached on M-F 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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YKA
January 11, 2005



TUAN HO
PRIMARY EXAMINER